DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date:

December 7, 2005

Kenneth C. McDaniel

State Cleanup Group

Thru:

Fran Metcalfe Rus for SB Steve Buckel Rus for SB

From:

To:

Stephen J. Sommer Apr 12 7.05

OLQ Chemistry Section

Subject:

Analytical Results for Lusher Avenue

Elkhart, Elkhart County, Indiana

Site #0000028

Sampled: October 20, 2005

Sample Numbers: LQ2301 – LQ2303

Microbac

The analytical results for the samples identified above have been validated according to the quality criteria contained in BAA 2-003 and Test Methods for Evaluating Solid Waste. Physical/Chemical Methods (SW846) Third Edition, Update III. Based on the evaluation, it has been determined that the results are acceptable for use. Reasons that data are qualified as estimated or unusable are explained below. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this sampling event was to determine if volatile organic compounds (VOCs) have impacted the groundwater in a residential well at concentrations that exceed their respective RISC Residential Default Closure Levels (RDCLs).

Sampling Quality Assurance/Quality Control:

The field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). The field duplicates, samples LQ2301 and LQ2302, were collected from the residential well at 1619 Avalon Street. The field duplicates compared well.

Field blanks (trip and/or equipment) are used to identify sample contamination resulting from sampling equipment, sample containers, chemical preservatives, and the handling and soil transportation of samples. A trip blank was utilized and required for this sampling event. The

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laboratory supplied trip blank contained Acctone and Trichloroethene at 2.2 parts per billion (ppb) and 0.9 ppb, respectively. Since these values are more than the method detection limit but less than the reporting limit, these results are estimated.

Since dedicated sampling equipment was utilized for sample collection, an equipment blank was not required nor utilized for this sampling event.

Laboratory Quality Assurance/Quality Control:

The laboratory performed all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following are comments and/or qualifications made regarding the data:

Groundwater

VOCs:

Two (2) groundwater samples and one laboratory supplied trip blank were analyzed for VOCs by SW846 Method 8260B. According to the laboratory, due to an internal error, these samples were stored at room temperature after receipt, thereby failing the 4 degrees C after receipt and prior to analysis criteria. Received on Saturday, the exceeded temperature was realized on Monday. Therefore, all of the results are estimated, biased low.

Acetone was detected in the method blank at 1.8 ppb. Since the trip blank and the method blank contained detections of Acetone at concentrations below the reporting limit, but above the method detection limit, Acetone is most likely a laboratory artifact and may not be actually present in the sample. Additionally, the concentrations of Acetone detected in the trip blank does not exceed ten times (10X) the concentration detected in the method blank. Therefore, the results for Acetone are estimated. No additional qualifiers were identified.

Results:

Groundwater

VOCs:

Although the results are estimated, the detected concentrations of 1,1-Dichloroethane and Trichloroethene in the residential groundwater samples were above their respective RISC RDCLs. All of the other estimated concentrations in the environmental samples were well below their respective RISC RDCLs. (See attached chart).

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Conclusions:

The data are usable for the overall project goal.

1,1-Dichloroethane and Trichloroethene have impacted the groundwater in a residential well at concentrations that exceed their respective RISC RDCLs.

Attachments

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OPFICE OF LAND QUALITY

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SITE INFORMATION *

IDEM Sample #s: <u>८ ६</u>	230/	LQ2303	Samp	ling Date(s):	8 MAY 2	2005
Site Name: LUSHE	ER AVEN	UE	Site II)#: <u>000</u> 0	0028	
Street Address: 161	9 AVACON :	<u>\$7</u> City: <u>σ</u>	ELKHART	Count	ry: ELK HAR	T
Site Representative(s): IDEM Samplers:KE Weather Conditions: Si	ENNETH	C MYDAL	164	Labor	ency: NA estory: Micro 55°F Hur	
Sample Types (check a	il applicable):	☐ Mon. Well	Res. Well	□ Creek	☐ Leachate	Ditch
Drainage Tile	☐ Lagoon	□ Pond	☐ Sludge	☐ Sediment	☐ Industrial V	Vaste
☐ Waste Pile	□ Soil	☐ Truck	Drummed \	Waste □ Wa	ıste Liquid	□ Oil
☐ Solvent	☐ Sand	□ Ash	Other		· · · · · · · · · · · · · · · · · · ·	_
Sample Choice (check)	: 🔲 Gra	b 🗆 Con	nposite	☐ Statistical	□ Random	☐ Judgmental
Sampling Equipment U						
Field Test Equipment U	Jsed: NA NA					
Container Source: Blank Water Source:	MICRO BAC		Sample Preser Decontaminati	vative Source: ion Water Sourc	MICRO BM	<u> </u>
Program Area (check):	☐ RCRA ☐ State Clean	□ CERCLA	☐ Solid Waste ergency Respon		□ LUST/UST	UNRP
Purpose (check):	□ Complaint	☐ Compliance	☐ Enforcemen	ıt □ Otl	ıer	,
Constituents Expected:				Handl	ing Precaution:	☐ Yes ☐ No
Photos Taken? 🗆 Yes	□ No Send a	nalytical data re	view to:		Phone:	
Other Notes or Deviation	ons from Sampli	ng Plan:				
Revised 09-11-00				Vinte C. 1	M Late:	20 Mg 2005

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF LAND QUALITY

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SAMPLE FIELD SHEET *

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	□ Wast	te Pile	□ Soil	□ Truc	k	☐ Sol	vent	□ Qil		🛘 Dru	mmed Waste
	□ Was	te Liquid	🗖 Sand	□ Ash	1	🗖 Trij	p Blank	□ Fiel	d Blank	□ Equ	iipment Blank
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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF LAND QUALITY

SAMPLE FIELD SHEET *

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□ Bac	kground	□ MS/MSD	Duplicate	of La	230/		D Oth	er					
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SAMPLE FIELD SHEET *

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□ Was	te Liquid	□ Sand	□ Ash	Trip Blank	☐ Field Bla	ank 🗆 Equipment Blank								
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Please Send Report to:

(7) DISTRIBUTION:

PINK COPY - IDEM Sampler

YELLOW COPY - Lab (Keep)

WHITE COPY - Lab (To be Returned to IDEM with Data Package)

JUL-26-2006 WED 03:21

Volatile Organic Analysis

Site Name:

Lusher Avenue

Water

Site Number: Location:

0000028 Elkhart, IN, Elkhart County

Date Sampled:

20-Oct-05 16-Nov-05

Date Reported: Sample Numbers:

LQ2301 - LQ2303

Lab:

Microbac

UNITS:

ug/L

Sample #		Type/iD#	1,1-Dichloroethane	1,1-Dichloroethere	Acetone	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichtoroethane	Trichloroethene
Lab	IDEM								
		Reporting Limit>	1	1	5	1_	1	1	20
RISC Reside	ential Defa	ult Closure Level >	5	7	950	70	100	200	5
ME0510670-01A	LQ2301	1619 Avalon Street **							
	LQ2302								
ME0510670-03A	LQ2303	Trip Blank*							

^{**}BLANK (Type indicated) Empty Box indicates NON-DETECTABLE

**FIELD DUPLICATE NR = NOT RUN NA=NOT AVAILABLE

Bold = above the RISC Residential Default Closure Level